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ABSTRACT

This study examined the predictive factors of persistence for African American students at historically black colleges and universities (HBCU) and at predominantly white institutions, and is based on John Bean's (1982) synthetic model, which incorporates background, organizational, environmental, attitudinal, and outcome variables. The hypotheses were that Bean's model might not fully explain attrition effects for the African American subgroup of the student population, and that differences might exist in the factors predicting African American student persistence at HBCUs and at predominantly white institutions. The database of the Cooperative Institutional Research Program provided a stratified sample of a cohort of freshman entering American colleges and universities in 1986 and follow-up information from 1990. Of the 295 African American students, 78 were enrolled at predominantly white 4-year institutions, while 217 were enrolled at 4-year HBCUs. Factor analyses provided scaled variables, which were subsequently utilized in the regression analysis. The results show that for HBCUs, the predictors for persistence were faculty mentoring, intention to marry, changing a major or career, and intention to leave the institution, while at predominantly white institutions, the mentoring of faculty was the sole predictor for African American persistence. An appendix lists the variables used. (Contains 27 references.) (Author/SW)

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A Comparative Study Of The Factors Which Predict Persistence For African American Students At Historically Black Institutions And Predominantly White Institutions

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Abstract

This study examines the predictive factors of persistence for African American students at Historically Black Colleges And Universities (HBCU) and predominantly white institutions. John Bean's (1982) synthetic model provides a theoretical framework, which incorporates background, organizational, environmental, and attitudinal and outcome variables. The hypotheses were: 1) Bean's model may not fully explain attrition effects for the African American subgroup of the student population; 2) Differences may exist in factors predicting African American student persistence at HBCUs and predominantly white institutions. Factor analyses were conducted to construct scaled variables, which were subsequently utilized in the regression analysis. The results show that for HBCUs, the predictors for persistence are faculty mentoring, intention to marry, changing a major or career, and intention to leave the institution, while at predominantly white institutions the mentoring of faculty is the sole predictor for African American persistence.

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Introduction

Persistence is a key concern for higher education institutions. Success in initial enrollment efforts can quickly be offset by attrition, causing strategic and financial stress, and impacting the institution's culture and future recruiting success. Of the nearly 2.4 million students who in 1993 entered higher education for the first time, over 1.5 million will leave their first institutions without receiving a degree. Of those, approximately 1.1 million will leave higher education altogether, without ever completing either a two- or a four-year degree program (Tinto, 1993).

This exodus from higher education is particularly alarming for African American students. Although the high school dropout rates of African Americans do not differ greatly from their white counterparts, 5% and 4% respectively in 1993 (Jones, 1995), the picture is entirely different at the postsecondary level (Lang & Ford, 1988; Olson, 1996; Tinto, 1993). According to a 10-year study conducted by the UCLA Higher Education Research Institute, 42% of whites and only 19.4% of African Americans complete their undergraduate degrees within four years (Olson, 1996). Indeed, this is an alarming condition because African Americans are initially underrepresented among entering college freshmen, and their higher college dropout rates will only serve to exacerbate racial differences at the point of graduation (Alexander Astin cited in Olson, 1996).

The primary purpose of this study is to ascertain the factors which predict the persistence of African American students at Historically Black Colleges and

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Universities (HBCUs) versus predominantly white institutions. Improving the effectiveness of African American postsecondary education remains a pivotal issue in the future of our society (Allen, 1996), and understanding the factors which predict persistence of African American students is indeed important and has significant implications for institutional practices and policies.

Literature Review

The literature regarding this subject will be examined in two segments: (a) study of attrition, and (b) research conducted on African American students at HBCUs and predominantly white institutions.

Attrition

Defining attrition is not always a simple, straightforward task (Parcarella, 1982), for no one definition of attrition is likely to capture entirely its complexity. Notwithstanding, for the purposes of this research, attrition will be defined from the institutional perspective, where attrition occurs when a person leaves and/or stops participating in any form of higher education under the jurisdiction of that organization (Tinto, 1982), namely dropping out of the institution. It is important to distinguish that this research will explore *institutional departure*, students that leave institutions, and not *system departure*, where the students withdraw from all forms of formal higher education (Tinto, 1982; 1993).

The study of attrition in higher education is extremely complex, for it involves not only a variety of perspectives but also a range of differing types of dropout behaviors (Pascarella, 1982; Tinto, 1982). Attrition has been extensively

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studied, and continues to receive much attention from the higher education community (Bean, 1982; Lang & Ford, 1988; Tinto, 1993). However, there is still much to be learned. Although we have been able to map out the dimensions and patterns of attrition, and have come to associate certain individual attributes with differences in rates of departure, we have only recently begun to scratch the surface of the complex processes of interaction among people within institutions that give rise to those patterns (Tinto, 1993).

Many studies argue that academic difficulties, social isolation, and sheer sense of bewilderment which often accompanies the transition to college, may pose real problems for individual students (Christie & Dinham, 1991; Tinto, 1993). However, according to the literature frequent contact with faculty appears to be a particularly important element in helping with transition issues and student persistence (Pascarella & Terenzini, 1979; Terenzini & Pascarella, 1980). Those encounters which go beyond the mere formalities of academic work to broader intellectual and social issues and which are seen by students as warm and rewarding, appear to be strongly associated with continued persistence (Tinto, 1993). Conversely, the absence of faculty contacts and/or the perception

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that they are largely formal exchanges limited to the narrow confines of academic work prove to be tied to the occurrence of dropout from college

(Pascarella & Terenzini, 1977).

African American Students at HBCUs and Predominantly White Institutions

Studies of attrition among students of different race and social class have focused largely on African American students (Nettles, 1988; Thompson and Fretz, 1991). For the most part, these studies support the contention that attrition among African American students, like that among white students, reflects both issues of social contact/congruence and academic performance (Tinto, 1993).

All students must adjust to college, but African American students at predominantly white institutions face additional problems. Many must create their own social and cultural networks, given their exclusion (self-and/or other-imposed) from the wider university community (Allen, 1996). Of all problems faced by African American students on white campuses, those arising from isolation, alienation, and lack of support seem to be most serious (Allen, 1984; Rosser, 1972). In general, African American students' academic performance is lower than that of their white peers, and their academic difficulties are often compounded by the absence of remedial/tutorial programs and information exchange with white students and faculty (Allen, 1996).

Research shows that African American students on black campuses, on the other hand, typically have lower standardized test scores and weaker high-school backgrounds than do typical African American students on white campuses (Astin & Cross, 1981). To a large extent, HBCUs enroll students who

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might not otherwise be able to attend college because of financial or academic barriers (Miller, 1981). They pride themselves on their ability to take poor and less well-prepared African American students as they are, correct their academic deficiencies, and graduate them equipped to compete successfully for jobs or graduate/professional school placements in the wider society (Miller, 1981).

Furthermore, when African American students on black and white campuses are compared for psychosocial development, those on black campuses seem to fare much better (Allen, 1996). According to Flemming (1984), African Americans demonstrated much higher levels of psychosocial adjustment on black campuses than for those on white campuses. Therefore, in general, the evidence suggests that African American students on black campuses are more disadvantaged socioeconomically and academically than are African American students on white campuses, but that students on black campuses display more positive psychosocial adjustments, significant academic gains, and greater cultural awareness/commitment (Allen, 1996).

Theoretical Framework

In order to ascertain the predictive factors of persistence for African Americans at historically black institutions and predominantly white institutions, John P. Bean's (1982) synthetic model of student attrition will be utilized. Bean's model is a comprehensive model which considers student background, as well as environment at the institution and outside of the institution, and we felt it was more comprehensive than most in the literature. This model was based on Bean's extensive review of the literature and synthesis

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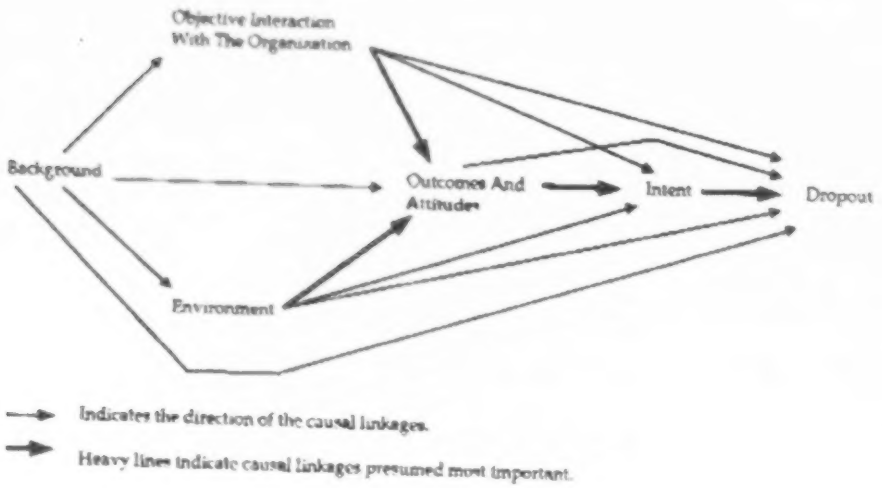
of the points he found therein. The model identifies five classes of variables – background, organizational, environmental, intention to leave, and attitudinal and outcome variables – that impact a student's intent to leave and ultimately drop out. See figure 1.

Figure 1. A Synthetic Causal Model of Student Attrition



According to Bean's (1982) model, the *background variables* represent information about students who have not yet entered college. These variables do not contain attitudinal assessments but only indicate facts. It is important to have these variables measured, so that one can control their effects statistically when assessing their influence of subsequent variables in the model (Bean, 1982).

The *organizational variables*, which depict the student's interaction with the institution, are presumed important in attrition effects (Bean, 1982). They are intended to look at the objective experience of the student (number of friends,

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amount of contact with faculty), and include structural variables, which can be administratively manipulated by the institution. Several studies, reported in Astone and Nunez-Wormack (1990), define institutions as composed of two subsystems; academic and social, and alienation from either of these subsystems contributes to attrition. These feelings of alienation are shown to be present, in a study by Loo and Rolison (cited in Astone & Nunez-Wormack, 1986), among minority students at predominantly white institution's.

Opposite of the organizational variables, *environmental variables* are those over which the institution has little or no control. These include among others opportunity to transfer, family obligations, and difficulty in financing school (Bean, 1982). Whereas most research is concentrated on what could "push" a student out of an institution, these variables indicate ways in which the student might be "pulled" from the institution (Bean, 1982).

The attitude and *outcome variables*, on the other hand, are expected to indicate more subjective evaluations of education, educational institution, and goals—a subjective interpretation of the objective educational experience (Bean, 1982) An example of this is a student's assessments of the institution's quality, and their own self-development.

And finally, according to Bean (1982), the *intent to leave variables* are hypothetically one of the best predictors of attrition. Whether they are depicted in terms of educational or occupational goals, individual intentions regarding participation in higher education are important predictors of the likelihood of

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degree completion (Astin, 1975; Bean, 1982).

Methodology

The study herein was designed to test Bean's (1982) synthetic model of student attrition. Although Bean's model was not designed specifically for the African American college population, it was used as a guiding framework to examine the factors that predict persistence for this student group. The literature revealed that student characteristics and experiences of African Americans students differ between HBCUs and predominantly white institutions. This study attempted to ascertain these differences utilizing the Cooperative Institutional Research Program (CIRP) database.

Data Source

The data was compiled by CIRP at the University of California--Los Angeles, which conducts longitudinal studies pertaining to the impact of different types of college environments on the individual student's development. In Bean's article (1983) that introduces his model, he suggests that this data set would be a good source of data to test his model. For the purposes of this study, a stratified sample of a cohort of freshman entering American colleges and universities in 1986, and their subsequent input in a follow-up survey in 1990, was utilized. Moreover, the 1986 cohort included a total respondent sample size of 3,922 with 295 African American students. Of those, 78 African American students were enrolled at 4-year predominantly white institutions while 217 were enrolled at 4-year HBCU's.

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Hypotheses

We hypothesize that, while Bean's (1982) model was reflective of attrition of students in general, that it may not be reflective of sub-groups of students, specifically African Americans. Additionally, we postulate that differences may exist in factors predicting African American student persistence at HBCUs and predominantly white institutions.

Variables

Variables from the CIRP database which corresponded to the variables used in Bean's (1982) model were selected. See Appendix A for a comprehensive listing of the variables and their descriptions. Additionally, several variables were recoded including: (a) the dependent variable, *persistence*, was computed using enrollment data from years one through four (*enroll 1-4* – enrollment status in each year), and assigning a value label of zero for those students who either reported that they did not enroll, or that they enrolled at a different college on a part-time or full-time basis; and a value label of one for those who reported staying at the same institution full time or part time; (b) *strat* – institutional type – variable was recoded to reflect 4-year HBCU's and 4-year predominantly white categories, into *catinst* (The recoding was conducted after frequency analyses revealed that returned surveys were not available from some of the four-year institutional classifications.); (c) *aid01-aid21* – types of financial aid students received – was recoded into *aid01rc-aid21rc* representing

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whether they received or did not receive aid from each of these sources. These variables were then used to compute a comprehensive *aidcomp* variable in an interval scale; (d) selected *slfchg* variables reflecting student perceptions of self change/development in general knowledge, disciplinary knowledge, critical thinking ability, job related skills, leadership skills, ability to work independently, interpersonal skills, cultural awareness, tolerance of different beliefs, acceptance of different races, confidence in academic ability, writing skills, public speaking ability, and ability to work cooperatively, were computed into a comprehensive *slfdevel* variable; (e) living arrangements initially nominally coded in the data set, were recoded into *livyr1 - livyr 4*, to represent the level of independence in living arrangements on an ordinal scale; and (f) *intleave*, which combined variables measuring plans to drop out temporarily, drop out permanently, and to transfer to another college into an ordinal scale with value labels ranging from a low to high on an "intention to leave" continuum.

Research Design

The comparative design of this quantitative study included initial factor analyses of the variables in each category. The variables were rotated through the varimax to the oblimin criterion. Subsequent reliability studies were utilized to produce seven scaled variables (see Table 1)– background characteristics, faculty mentoring (*mentor*), social environment (*socenvir*), intention to marry (*intents*), housing options (*housing*), changes in major or career (*changes*),

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previous achievement (*zachieve*) -- which in addition to the financial aid (*aidcomp*) and intention to leave (*intleave*) variables, were regressed against the dependent variable, *persistence*. It is important to note that while multiple scaled variables were derived from the factor analyses, only reliable factors were used. Seven variable clusters did not meet reliability criteria ($\alpha \geq 0.6$). These were religion, employment status (off- or on-campus), participation in fraternities/sororities, previous academic reputation and whether the institution attended was one of choice. The reliable scaled variables and the financial aid and intention to leave variables, in turn, were first run in a general regression equation that included all institutional types and both African American and non-African American students. Next, three separate regression equations were run for non- African Americans at predominantly white institutions, African Americans at predominantly white institutions, and African Americans at HBCUs. Due to the small African American sample size, mean substitution was applied to the equations for the three sub-groups.

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Table 1 - Derivation of scaled variables (factors) for final regression.

	Factors						
Variables	Housing options	Mentor relation	Social environ.	Prev. achieve.	Back-ground	Intent to marry	Change major/ career
Living arrange-yr 3	.8367						
Living arrange-yr 2	.7864						
Living arrange-yr 4	.7852						
Living arrange-yr 1	.6398						
Faculty relations		.8662					
Faculty contact		.8607					
Fac/admin advisement		.5520					
Satisfaction w/ major		.5418					
Socializing			.7959				
Partying			.7605				
Sports			.6027				
SAT - math (standardized)				.8509			
SAT - verbal (standardized)				.8067			
High School GPA (standardized)				.7451			
Father's education					.8464		
Mother's education					.7970		
Family income					.7103		
Distance from home					.4382		
Marry after college						.8986	
Marry during college						.8984	
Change major							.9358
Change career							.9356
Eigenvalue	2.52	2.30	1.72	1.50	2.57	1.62	1.79
Factor reliability	.755	.670	.617	.734	.631	.724	.856

Results from structure matrix, oblique rotation.

Results

As depicted in Table 2, for the general student population, significant (α = .05) predictors of persistence included housing options, previous achievement, faculty mentoring, intention to leave, and changes to the major or career. Per the beta values, Intention to leave (beta = -.0881) is associated with drawing students away from the institution, while the other variables are positively related to their persisting. The remaining variables (financial aid, social environment,

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background characteristics, and intention to marry) were not significant; however, their values were reported to remain consistent with the "enter" regression method enlisted for testing Bean's (1982) model. The *r*-square of .13 suggests that this regression equation explains 13 percent of the variance in persistence. The remaining 87 percent can be attributed to variables not included or misrepresented in the CIRP database, unknown variables, and random error. Further, the regression constant of 2.08 shows that in general, this sample of students was modestly committed to remaining enrolled.

Table 2 - General Regression equation for persistence of all students across all institutions.

	Regression Equation		
Variable	B	beta	T-value
Financial aid	-.0057	-.0133	-0.588
Housing options	.0241	.0717	3.296 *
Previous achievement	.0590	.1423	6.366 *
Social environment	.0080	.0311	1.427
Faculty mentoring	.0941	.2904	13.673 *
Background characteristics	-.0028	-.0182	-0.761
Intention to leave	-.0542	-.0831	-3.966 *
Change major / career	.0280	.0477	2.169 *
Intention to marry	-.0150	-.0242	-1.135
Constant	2.08		
R-squared	0.1281		

* Significant at 0.05 level

On the other hand, Table 3 shows results of the regression run for non-African American students at predominantly white institutions. The same set of variables were significant in this equation as in the general equation, except that changes to the major or the career did not meet the significance criterion (α = .05). Also similar is the direction of the beta; again, with intention to leave (-.0675) being the only variable with a mitigating relationship to persistence. The

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r-square of .13 indicates that 13 percent of the variance in persistence is explained by the equation, which is 2 percent greater than the general equation. Moreover, the 15.33 constant reflects the strength of the regression coefficients and the mean values in the sample for the variables that were considered.

Table 3 - Regression equation for persistence of Non-African American students at predominantly white institutions

	Regression Equation		
Variable	B	beta	T-value
Financial aid	-.0077	-.0185	-1.118
Housing options	.0116	.0339	2.118 *
Previous achievement	.0436	.0804	4.966 *
Social environment	.0015	.0057	0.355
Faculty mentoring	.1054	.3346	21.180 *
Background characteristics	-.0018	-.0111	-0.650
Intention to leave	-.0416	-.0675	-4.088 *
Change major / career	.0182	.0307	1.880
Intention to marry	-.0143	-.0230	-1.455
Constant	15.33		
R-squared	0.1311		
* Significant at 0.05 level			

In Table 4, which reports results for the regression equation for persistence of African American students at predominantly white institutions, there was only one significant variable: faculty mentoring. The positive beta value of 0.3575 indicates that faculty mentoring is associated with African American student persistence at predominantly white institutions. The r-square value of .19 is the highest for all regression equations, and suggests that 19 percent of the variance in persistence is explained by the regression equation, with the remaining 81 percent being attributed to a misrepresentation or an exclusion of variables in the CIRP database, unknown variables, and random error. The constant value for this equation was 1.97.

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Table 4 - Regression equation for persistence of African American students at predominantly white institutions

	Regression Equation		
Variable	B	beta	T-value
Financial aid	.0211	.0596	0.501
Housing options	.0022	.0062	0.053
Previous achievement	-.0101	-.0222	-0.195
Social environment	-.0166	-.0794	-0.681
Faculty mentoring	.1042	.3575	3.126 *
Background characteristics	.0232	.1584	1.334
Intention to leave	-.0112	-.0223	-0.182
Change major / career	-.0123	-.0244	-0.213
Intention to marry	-.0580	-.1105	-0.925
Constant	1.97		
R-squared	0.1881		

* Significant at 0.05 level

Finally, Table 5 displays results for the regression equation for persistence of African American students at HBCUs. Significant variables included faculty mentoring, intention to leave, changes in the major or career, and intention to marry. The negative beta (-.2066) for the intention to marry variable is the only one that is negatively associated with persistence. The others have a positive relationship, the largest being changing the major or career (.1460), followed by intention to leave (.1425) and faculty mentoring (.1385). Approximately 10 percent of the variance in persistence is explained by the equation (r-square value = .1083), and the constant (2.918) reflects a commitment to carry on their education to completion at the baccalaureate level.

A most surprising finding was the positive beta value for intention to leave. As described earlier, this variable was computed by combining three variables: intention to drop out temporarily, intention to drop out permanently, and intention to transfer to another college. The three original variables, before

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being summed together, were each rated on the following scale: no chance; very little chance; some chance; very good chance. In previous regression results where intention to leave was significant (in both the general equation, and the results for non-African American students at predominantly white institutions), the beta was negative, implying that higher ratings on the intention to leave variable were associated with attrition. However, the positive result for African American students at HBCUs is counterintuitive.

To check this result, we examined the mean intention to leave across the four groups. Our thinking was if the mean was highest among African American students at HBCUs, one possible explanation could be that some sets of students enter HBCUs somewhat tentatively, which would be seen in presumably high levels of intention to leave. However, the data did not support this assertion. The mean value for intention to leave for African American students at HBCUs and at predominantly white institutions was 4.74; the mean for non-African American students at predominantly white institutions was 5.01. Therefore, we were not able to explain the negative beta value. The implication is the more these African American students at HBCUs report they intend to depart from the institution, the more they tend to stay.

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Table 5 - Regression equation for persistence of African American students at Historically Black Colleges and Universities (HBCUs)

	Regression Equation		
Variable	B	beta	T-value
Financial aid	-.0165	-.0411	-0.610
Housing options	-.0067	-.0186	-0.281
Previous achievement	.0380	.0680	1.010
Social environment	-.0145	-.0737	-1.104
Faculty mentoring	.0382	.1385	2.017 *
Background characteristics	.0096	.0688	1.001
Intention to leave	.0718	.1425	2.094 *
Change major / career	.0735	.1460	2.190 *
Intention to marry	-.1113	-.2066	-3.029 *
Constant	2.918		
R-squared	0.1083		

* Significant at 0.05 level

Significance Level

A deliberate choice was made to consider results significant at the .05 level, based on an expected cost-benefit analysis result. Specifically, we were interested in the practical organizational perspective, and implications that would arise from a broader examination of the potential predicting factors of persistence. Given this, by accepting the results at a .05 significance level, implying a 5% probability of finding a factor significant when it is not, we are maximizing the information available to the institutions. The costs of taking this approach are limited, while the benefits in terms of retaining students are notable.

Significant at both HBCUs and predominantly white institutions, our findings regarding increased faculty mentoring opportunities for African American students were shown to decrease attritive tendencies for these

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students. Increasing faculty mentoring opportunities carries with it potential financial concerns, usually in additional expenses related to reduced teaching loads of faculty to provide more time for mentoring opportunities. However, the benefits are numerous and have the potential for significant impact on the institution. With 80.6% of African American students attriting at some time within the first four years before completing their undergraduate degree (Olson, 1996), any reduction of this persistence would likely be supported by the additional tuition continuing students provide.

The intent to marry, found to be a significant predictor of persistence at HBCUs only, does not lend itself to direct administrative intervention at the institutional level, but provides insight for college administrators pertaining to student concerns. Such knowledge could assist administrators in designing retention programs better suited to African American students, and possibly students in general.

Conclusion

The study revealed that for African American students, faculty mentoring is a significant factor at HBCUs and predominantly white institutions. This finding supports what is stated in the literature, which argues that frequent contact with faculty is a predictor of student persistence in college (Pascarella & Terenzini, 1979; Terenzini & Pascarella, 1980). Additionally, for African American students enrolled at HBCUs, the intent to marry, intention to leave, and changes in the major or career were also a significant predictors. This is an interesting finding, especially the intent to marry predictor, which has not been

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broached in the literature of persistence. The finding for African American students at HBCUs, changes in the major and the career are associated with staying in college, raises noteworthy implications for bolstering academic and career counseling from both faculty and administration at HBCUs.

The enigmatic positive relationship between intention to leave and persistence for African American students at HBCUs is difficult to interpret at this time. The connection needs to be further examined before meaningful explanations can be provided. Perhaps a qualitative approach could provide deeper insight.

In considering these results, it is important to note that our study has explained only 19 percent of the variance in persistence for predominantly white institutions, and 10 percent for HBCUs. This indicates that there are other significant variables regarding African American student persistence which have not been uncovered by our study.

Although we hypothesized that other variables in Bean's (1982) model would have had a predicting factor on persistence, it was surprising to find that only one variable, faculty mentoring, was salient for all institutions examined. Specifically and consistent with Bean's model, we expected to find that the intention to leave would have been one of the strongest predictors for persistence. Not only was the intention to leave not the strongest predictor, it also proved to not be statistically significant for our sample of African American students at predominantly white institutions. Moreover, the result for intention to leave at HBCUs was counterintuitive.

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Limitations

A major limitation of this study was a product of the conventional methods used to frame the unit of analysis. The 4-year longitudinal aspect of the CIRP database forced this study to define persistence in terms of degree completion in the "standard" four-year period. In doing so, it does not consider the fact that an increasing number of individuals attend college on a part-time basis and/or are employed at least part-time while going to college (Tinto, 1993). In order to design a persistence study for African American students, their college attendance patterns would first need to be examined. For instance, if the pattern of attendance indicates that African American students are generally completing their baccalaureate degree in 4 years, then the 19.4% attrition rate in the first 4 years reported in the UCLA study (Olson, 1996) is more alarming than if this subgroup generally has a longer period to degree completion. Hence, understanding attendance patterns for any particular sub-group is indeed crucial for constructing an effective and valid persistence study.

Another limitation in this study was the small sample size of African American students enrolled in predominantly white institutions. Had the sample been larger, we would not have needed to use the mean substitution technique, and more variables could have been included in the regression equation. Testing more variables on a larger sample would thus have provided greater insight into the contributing factors of persistence.

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Recommendations for further research

In order to effectively answer the research question regarding the factors that predict persistence of African American students at HBCUs and predominantly white institutions, we would need a sample that includes larger representation of African American students at the predominantly white institutions. Further, the trend towards longer periods of degree completion for the baccalaureate need to be examined. This trend includes possible sub-trends such as (a) increased levels of part-time students, (b) the behavior of age groups re-entering college at later life stages, and (c) within those age groups, the effects of ethnic sub-group attendance patterns.

As previously stated, improving the effectiveness of African American postsecondary education remains a pivotal issue in the future of our society (Allen, 1996), and understanding the factors which predict persistence of African American students is indeed important and has significant implications for institutional practices and policies. This study indicates that faculty mentoring is a significant predictor for persistence of African American students at both HBCUs and predominantly white institutions. Thus, it becomes clear that institutions need to look at ways to improve faculty mentoring of African American students in order to reverse the attrition effects that have been found. It is only then that we will begin to close the gap, and provide African American students with a genuine opportunity for success at our institutions of higher education.

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Appendix A

Variables From The CIRP Database

CIRP VARIABLE	VARIABLE DESCRIPTION
DEPENDENT VARIABLE	
PERSISTENCE[1]	Does not depart from the institution
INDEPENDENT VARIABLES	
Background Variables:	
MOTHEDUC	Mother's education level
FATHEDUC	Father's education level
HSGPA	High school grade point average (standardized)
SATV	Score on SAT verbal test (standardized)
SATQ	Score on SAT quantitative test (standardized)
DISTHOME	Distance in miles from home
INCOME	Parental income
AIDCOMP[1]	Financial aid or assistance
Organizational Variables	
HPW8602	Time spent socializing with friends
SATIS18	Satisfaction with career counseling
SATIS22	Satisfaction with faculty/admin. contacts
HPW8609	Time spent in student clubs or groups
COLACT02	Joined fraternity or sorority
COLACT11	Elected to student office
SATIS04	Satisfaction with courses in major field
LIVEARR1 - LIVEARR4	Living arrangements during 4 years
COLACT05 - COLACT07	Student employment status
HPW8606	Time spent partying
HPW8604	Time spent exercising or in sports
HPW8612	Time spent in hobbies
AID01 - AID21[1]	Financial aid arrangements
FUTACT20 - FUTACT22	Intent to drop out or transfer
Intentions	
FUTACT20 - FUTACT22	Intent to drop out or transfer
Environmental Variables	
DERIVE5	Transferred before graduating
TIMEOFF09	Left for a good job offer
REASON09	Chose institution based on parent's wish
FUTACT25 - FUTACT26	Intent to marry while in college or one year after
FINCON	Financial Concern
Outcome and Attitudinal Variables	
SATIS06	Satisfaction with relevance of course work to life
CHOOSE03	College choice based on good academic reputation
SATIS27	Satisfaction with overall college experience

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ACTLY12	Was bored in class
FUTACT01 - FUTACT02	Intent to change major field or career choice
PLAN9003	Planned to attend graduate school
FUTACT18	Planned to get baccalaureate degree
ACT8518	Overslept or missed class
SLFCHG01*	Student's perceived change in level of general knowledge
SLFCHG03*	Student's perceived change in level of knowledge of particular field
SLFCHG04*	Student's perceived change in level of critical thinking ability
SLFCHG06*	Student's perceived change in level of job related skills
SLFCHG10*	Student's perceived change in level of leadership ability
SLFCHG12*	Student's perceived change in interpersonal skills
SLFCHG13*	Student's perceived change in cultural awareness
SLFCHG14*	Student's perceived change in tolerance of different beliefs
SLFCHG15*	Student's perceived change in acceptance of different races
SLFCHG17*	Student's perceived change in writing skills
SLFCHG18*	Student's perceived change in public speaking ability
SLFCHG20*	Student's perceived change in ability to work cooperatively

* Variables that were later recoded

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